DEPARTMENT OF
ECOLOGY
State of Washington

Issuance Date: April 23, 2009
Effective Date: July 1, 2009
Expiration Date: June 30, 2014

STATE WASTE DISCHARGE PERMIT NUMBER ST 6175

State of Washington
DEPARTMENT OF ECOLOGY
Southwest Regional Office

In compliance with the provisions of the
State of Washington Water Pollution Control Law
Chapter 90.48 Revised Code of Washington, as amended,
And
The Federal Water Pollution Control Act
(The Clean Water Act)
Title 33 United States Code, Section 1251 et seq.,
authorizes

Marine Industries Northwest, Inc.
P.O. Box 1275
Tacoma, Washington 98401

to discharge wastewater in accordance with the special and general conditions which follow.

Facility Location:	Discharge Location:
313 East F Street Tacoma, WA 98421	Outfall 001: From Sedimentation Basin to Infiltration Basin
Industry Type Ship Construction and Repair	Latitude: 47° 15' 35" N Longitude: 122° 25' 47" W
SIC Code: 3731	

Original signed by:

Garin Schrieve, P.E.
Southwest Region Manager
Water Quality Program
Washington State Department of Ecology

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SUMMARY OF PERMIT REPORT SUBMITTALS

Refer to the Special and General Conditions of this permit for additional submittal requirements.

Permit Section	Submittal	Frequency	First Submittal Date
S2.A	Discharge Monitoring Report	Monthly	August 15, 2009
S2.E	Reporting Anticipated Non-compliance and Unanticipated Non-compliance Notification	As necessary	Immediate notification; send written report within 30 days of becoming aware of noncompliance
S3.A	Modified Operations and Maintenance Manual or Review Confirmation Letter	Annually	
S3.A	Operations and Maintenance Manual	1/permit cycle	**January 2, 2013** if no modifications have been submitted during this permit cycle
S3.B	Reporting Bypasses	As necessary	
S4.C	Modification to Solid Waste Plan	As necessary	Within 30 days of modification
S4.C	Solid Waste Control Plan	1/permit cycle	**January 2, 2013** if no modifications have been submitted during this permit cycle
S5.	Modified Spill Plan	As necessary	Within 30 days of modification
S5.	Spill Plan	1/permit cycle	**January 2, 2013** if no modifications have been submitted during this permit cycle
S6.A.	Stormwater Pollution Prevention Plan Revisions	As necessary	Within 30 days of modification
S6.A.	Stormwater Pollution Prevention Plan	1/permit cycle	**January 2, 2013** if no modifications have been submitted during this permit cycle
G7.	Application for permit renewal	1/permit cycle	**January 2, 2013**
G8.	Notice of Permit Transfer	As necessary	Within 30 days of a transfer

SPECIAL CONDITIONS

S1. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

All discharges and activities authorized by this permit shall be consistent with the terms and conditions of this permit. The discharge of any of the following pollutants more frequently than, or at a concentration in excess of, that authorized by this permit shall constitute a violation of the terms and conditions of this permit. Nothing in this permit authorizes the violation of Water Quality or Sediment Management Standards.

A. Sedimentation Basin Effluent – Outfall 001

Beginning on the effective date and lasting through the expiration date of this permit, the Permittee is authorized to discharge treated stormwater, treated Hydroblast wastewater and treated rinse water as it flows from the sedimentation basin to the infiltration basin. The sampling point for the stormwater and rinse water will be after the sedimentation basin, prior to release to the infiltration basin. The Permittee shall monitor the stormwater and rinse water according to the following schedule and limitations:

Parameter	Units	Minimum Daily	Average Monthly[1]	Maximum Daily[2]	Sampling Frequency	Sample Type	Method
Flow[3]	gpd	n/a	Report	Report	1/month	Weir	Measured
Oil and Grease	mg/L	n/a	10	n/a	1/month	Grab	EPA 1664A
pH	s.u.	6.0	n/a	8.5	1/month	Grab	Measured
Total Dissolved Solids	mg/L	n/a	Report	n/a	1/month	Grab	
Total Suspended Solids	mg/L	n/a	Report	n/a	1/month	Grab	
Total Copper	µg/L	n/a	802	n/a	1/month	Grab	EPA 200.7
Total Lead	µg/L	n/a	Report	n/a	1/month	Grab	EPA 200.7
Total Zinc	µg/L	n/a	748	n/a	1/month	Grab	EPA 200.7

1. The average monthly effluent limitation is defined as the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

2. The maximum daily effluent limitation is defined as the highest allowable daily discharge. The daily discharge means the discharge of a pollutant measured during a calendar day. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day.

3. The Permittee shall keep a daily log of totalized flow. This log shall be made available to Ecology upon request.

B. Monitoring Schedule and Enforcement Limitations for Groundwater

Beginning on the effective date and lasting through the expiration date of this permit, the Permittee is authorized to discharge treated stormwater, treated Hydroblast wastewater and treated rinse water as it flows from the sedimentation basin to the infiltration basin as long as there are no groundwater exceedences to the following schedule and limitations:

Parameter	Units	Monitoring Well	Minimum Daily[1]	Maximum Daily[1]	Early Warning[2]	Sampling Frequency	Sample Type	Method
Water Level	Feet	Wells A, B, and C	n/a	Report	n/a	1/month	Measure	Measure
pH	s.u.	Wells A, B, and C	Report	Report	n/a	1/month	Measure[3, 4, 5]	pH Meter
Total Dissolved Solids	mg/L	Wells A, B, and C	n/a	Report	n/a	1/month	Grab[3, 4, 5]	
Total Copper	µg/L	Wells A, B, and C	n/a	1,000	500	1/month	Grab[3, 4, 5]	EPA 200.7
Total Lead	µg/L	Wells A, B, and C	n/a	Report	n/a	1/month	Grab[3, 4, 5]	EPA 200.7
Total Zinc	µg/L	Wells A, B, and C	n/a	5,000	2,500	1/month	Grab[3, 4, 5]	EPA 200.7
1. The maximum daily effluent limitation is defined as the highest allowable daily discharge. The daily discharge means the discharge of a pollutant measured during a calendar day. Maximum daily limits apply to wells B and C only; well A must be reported in all cases.								
2. Upon detecting concentrations that are in excess of the following groundwater concentrations, the Permittee shall immediately follow the procedure contained in the approved Operations and Maintenance Manual as per Special Condition S3.A.10. If this situation occurs, a report shall be submitted to Ecology within 30 days of completion of the procedure. The early warning limitations apply to wells B and C only.								
3. All samples of groundwater shall be collected at the monitoring wells using low flow techniques as recommended in the **Implementation Guidance for the Groundwater Quality Standards** (Ecology Pub. No. 96-02, 1996 as updated).								
4. Groundwater samples should be collected during periods of low tide or as close to the low tide as possible. Refer to the tide tables when planning the collection of groundwater samples.								
5. A logbook reporting stabilized well purging results (see note 1., above) shall be kept at the facility and shall record pH, specific conductance, temperature and dissolved oxygen) for each well and sampling event. This logbook shall be kept at the facility and be available for review by Ecology.								

C. Infiltration Basin Bypass Monitoring

In the event of a bypass of the infiltration basin to discharge stormwater to the Middle Waterway, the Permittee shall record the date, time and duration of the overflow event immediately upon obtaining knowledge (this can be accomplished by an accumulating nonvolatile memory digital time meter with which the stormwater treatment system is equipped as stated in the engineering report). If the event occurs during non-business hours, the Permittee shall verbally report the release to the Department of Ecology (Ecology) within 24-hours. For overflows occurring during business hours, the Permittee shall take one grab sample of the stormwater from the overflow weir and submit it for analysis to all the parameters listed in S1.A. A written report on the overflow, including the results of the chemical analyses (for overflows occurring during normal business hours) and a detailed description of the cause of the overflow event, shall be submitted to Ecology within 30 days of the event or, if samples are taken, with the next monthly monitoring report following receipt of the chemical analyses.

D. Sampling and Analytical Procedures

Samples and measurements taken to meet the requirements of this permit shall be representative of the volume and nature of the monitored parameters, including

representative sampling of any unusual discharge or discharge condition, including bypasses, upsets and maintenance-related conditions affecting effluent quality.

Ground water sampling shall conform to the latest protocols in the *Implementation Guidance for the Ground Water Quality Standards*, (Ecology 1996).

Sampling and analytical methods used to meet the water and wastewater monitoring requirements specified in this permit shall conform to the latest revision of the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 Code of Federal Regulations (CFR) Part 136 or to the latest revision of *Standard Methods for the Examination of Water and Wastewater* (APHA), unless otherwise specified in this permit or approved in writing by Ecology.

All soil analysis and reporting will be in accordance with *Laboratory Procedures*, Soil Testing Laboratory, Washington State University, November 1981.

E. Flow Measurement

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the quantity of monitored flows. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements is consistent with the accepted industry standard for that type of device. Frequency of calibration shall be in conformance with manufacturer's recommendations and at a minimum frequency of at least one calibration per year. Calibration records shall be maintained for at least three years.

F. Laboratory Accreditation

All monitoring data required by Ecology shall be prepared by a laboratory registered or accredited under the provisions of, Accreditation of Environmental Laboratories, Chapter 173-50 Washington Administrative Code (WAC). Flow, pH, and internal process control parameters are exempt from this requirement. Crops, soils, and hazardous waste testing have not been included in the accreditation program. Crops, soils, and hazardous waste data shall be provided by a lab accredited for similar parameters in water media.

S2. REPORTING AND RECORDKEEPING REQUIREMENTS

The Permittee shall monitor and report in accordance with the following conditions. The falsification of information submitted to Ecology shall constitute a violation of the terms and conditions of this permit.

A. Reporting

The first monitoring period begins on the effective date of the permit. Monitoring results shall be submitted monthly. Monitoring data obtained during the previous month shall be summarized and reported on a form provided, or otherwise approved, by Ecology, and be postmarked or received no later than the 15th day of the month following the completed reporting period, unless otherwise specified in this permit. The report(s) shall be sent to:

Industrial Unit Permit Coordinator

Department of Ecology
Southwest Regional Office
P.O. Box 47775
Olympia, Washington 98504-7775

All lab reports providing data for organic and metal parameters shall include the following information: sampling date, sample location, date of analysis, parameter name, CAS number, analytical method/number, method detection limit (MDL), lab practical quantitation limit (PQL), reporting units, and concentration detected.

Discharge Monitoring Report forms must be submitted monthly whether or not the facility was discharging. If there was no measurable discharge at Outfall 001, submit the form as required. In place of the monitoring results, the box for "No Discharge" at the top right side of the discharge monitoring report (DMR) must be checked and the DMR must be submitted to Ecology. Groundwater monitoring is still required during periods of no discharge.

B. Records Retention

The Permittee shall retain records of all monitoring information for a minimum of three years. Such information shall include all calibration and maintenance records and all original recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by the Director.

C. Recording of Results

For each measurement or sample taken, the Permittee shall record the following information: (1) the date, exact place and time of sampling; (2) the individual who performed the sampling or measurement; (3) the dates the analyses were performed; (4) who performed the analyses; (5) the analytical techniques or methods used; and (6) the results of all analyses.

D. Additional Monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by this permit using test procedures specified by Special Condition S1 of this permit, then the results of this monitoring shall be included in calculation and reporting of the data submitted in the Permittee's self-monitoring reports.

E. Noncompliance Notification

In the event the Permittee is unable to comply with any of the permit terms and conditions due to any cause, the Permittee shall:

1. Immediately take action to stop, contain, and cleanup unauthorized discharges or otherwise stop the violation, and correct the problem;

2. Repeat sampling and analysis of any violation and submit the results to Ecology within 30 days after becoming aware of the violation;

3. Immediately notify Ecology of the failure to comply; and

4. Submit a detailed written report to Ecology within 30 days, unless requested earlier by Ecology, describing the nature of the violation, corrective action taken and/or planned, steps to be taken to prevent a recurrence, results of the resampling, and any other pertinent information.

Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

F. Maintaining a Copy of This Permit

A copy of this permit shall be kept at the facility and be made available upon request to Ecology inspectors.

S3. OPERATION AND MAINTENANCE (O&M)

The Permittee shall at all times be responsible for the proper operation and maintenance of any facilities or systems of control installed to achieve compliance with the terms and conditions of the permit.

A. Operations and Maintenance Manual

The O&M Manual shall be reviewed by the Permittee at least annually and the Permittee shall submit to Ecology for approval an updated O&M Manual in accordance with WAC 173-240-150 or confirm this review by letter stating that the O&M Manual is up to date to Ecology. Substantial changes or updates to the O&M Manual shall be submitted to Ecology whenever they are incorporated into the manual. If no modifications to the O&M Manual have been made during this permit cycle, then the Permittee shall review and update the O&M Manual and submit it to Ecology no later than **January 2, 2013** before the expiration date of this permit.

The approved operation and maintenance manual shall be kept available at the permitted facility and all operators shall follow the instructions and procedures of this manual.

The operation and maintenance manual shall contain the treatment plant process control monitoring schedule. All operators shall follow the instructions and procedures of this manual.

In addition to the requirements of WAC 173-240-150(1) and (2), the manual shall include:

1. Treatment vault, infiltration system, and infiltration system operational controls and Hydroblast treatment procedures;

2. Emergency procedures for plant shutdown and cleanup in event of wastewater system upset or failure;

3. Stormwater treatment system maintenance procedures;

4. Hydroblast treatment system maintenance procedures;

5. Protocols and procedures for ground water monitoring network sampling and testing;

6. Maintenance procedures and schedules for all oil/water separators and/or oil skimming equipment on site.

7. Maintenance procedures and schedules for all catch basins, catch basin inserts, and catch basin filter fabrics.

8. The procedure for allowing a bypass, resulting from a severe storm and associated monitoring and reporting (as per Special Condition S3.B) shall be described in the Plan.

9. A description of any regularly scheduled maintenance or repair activities at the facility which would affect the volume or character of the wastes discharged to the infiltration basin and a plan for monitoring and treating/controlling the discharge of maintenance-related materials (such as cleaners, degreasers, solvents, etc.).

10. A description of steps taken to mitigate any threat to groundwater upon exceedance of early warning values contained in Condition S1.B, including sampling to confirm exceedences.

B. Bypass Procedures

The Permittee shall immediately notify Ecology of any spill, overflow, or bypass from any portion of the treatment system.

The bypass of wastes from any portion of the treatment system is prohibited unless one of the following conditions (1, 2 or 3) applies:

1. *Unavoidable Bypass* -- Bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.

   If the resulting bypass from any portion of the treatment system results in noncompliance with this permit, the Permittee shall notify Ecology in accordance with condition S2.E "Noncompliance Notification."

2. *Anticipated Bypass That Has the Potential to Violate Permit Limits or Conditions* -- Bypass is authorized by an administrative order issued by Ecology. The Permittee shall notify Ecology at least 30 days before the planned date of bypass. The notice shall contain a description of the bypass and its cause; the duration of the bypass, including exact dates and times; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass. Ecology will consider the following prior to issuing an administrative order:

   a. If the bypass is necessary to perform construction or maintenance-related activities essential to meet the requirements of the permit.

   b. If there are feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment down time, or transport of untreated wastes to another treatment facility.

   c. If the bypass is planned and scheduled to minimize adverse effects on the public and the environment.

   After consideration of the above and the adverse effects of the proposed bypass and any other relevant factors, Ecology will approve or deny the request. The public shall be notified and given an opportunity to comment on bypass incidents of significant duration, to the extent feasible. Approval of a request to bypass will be by administrative order issued by Ecology under Revised Code of Washington (RCW) 90.48.120.

3. B*ypass For Essential Maintenance Without the Potential to Cause Violation of Permit Limits or Conditions* -- Bypass is authorized if it is for essential maintenance and does not have the potential to cause violations of limitations or other conditions of the permit, or adversely impact public health as determined by Ecology prior to the bypass.

C. Infiltration

1. Runoff from the industrial areas of the facility shall be controlled to prevent, to the maximum extent practicable, the discharge to any surface waters of the state or to any land not owned by, or under control of, the Permittee. Building roof areas are not considered industrial areas.

2. The wastewater shall not be applied to the infiltration basin in quantities that:

   a. Significantly reduce or destroy the long-term infiltration rate of the soil.

   b. Would cause long-term anaerobic conditions to the soil.

   c. Would cause leaching losses of pollutants beyond the treatment zone or in excess of the approved design.

S4. SOLID WASTE DISPOSAL

A. Solid Waste Handling

The Permittee shall handle and dispose of all solid waste material in such a manner as to prevent its entry into state ground or surface water.

B. Leachate

The Permittee shall not allow leachate from its solid waste material to enter state waters without providing all known, available and reasonable methods of treatment, nor allow such leachate to cause violations of the State Surface Water Quality Standards, Chapter 173-201A WAC, or the State Ground Water Quality Standards, Chapter 173-200 WAC. The Permittee shall apply for a permit or permit modification as may be required for such discharges to state ground or surface waters.

C. Solid Waste Control Plan

The Permittee shall submit all proposed revisions or modifications to the solid waste control plan to Ecology. The Permittee's existing Solid Waste Control Plan (as required under NPDES Permit No. WA0040444) shall be updated to include any applicable solid waste disposal management methods as it pertains to this State Waste Discharge Permit. The Permittee shall comply with any modifications to this Control Plan. Changes to the Plan shall be sent to Ecology within 30 days of the modification. If no modifications to the Solid Waste Control Plan have been made during this permit cycle, then the Permittee shall review and update the Solid Waste Control Plan and submit it to Ecology no later than **January 2, 2013**.

S5. SPILL CONTROL PLAN

The Permittee shall review the existing Spill Control Plan at least annually and update the Spill Control Plan as needed. Changes to the Plan shall be sent to Ecology within 30 days of the modification. The Plan and any supplements shall be followed throughout the term of the permit. If no modifications to the Spill Control Plan have been made during this permit cycle, then the Permittee shall review and update the Spill Control Plan and submit it to Ecology no later **January 2, 2013.**

The Spill Control Plan shall include the following:

- A description of operator training to implement the plan.
- A description of the reporting system which will be used to immediately alert facility managers and legal authorities (i.e. Department of Ecology and US Coast Guard) in the event of a spill or unpermitted discharge.
- A description of preventive measures and facilities (including an overall facility plot showing drainage patterns) which prevent, contain, or treat spills or unpermitted discharges. The use of dispersants and emulsifiers are prohibited without specific approval from the Director of Ecology.
- Address the prevention, containment, and control of spills or unplanned discharges of: (1) oil and petroleum products, (2) materials, which when spilled, or otherwise released into

the environment, are designated Dangerous Waste (DW) or Extremely Hazardous Waste (EHW) by the procedures set forth in WAC 173-303-070, or (3) other materials which may become pollutants or cause pollution upon reaching the waters of the State.

- Plans and manuals required by 40 CFR Part 112, contingency plans required by Chapter 173-303 WAC, or other plans required by other agencies which meet the intent of this section may be submitted.

- In case of a release of sandblast grit and paint into the waterway, the spill plan shall include a provision for skimming of paint and sandblast grit from the waterway.

- A list of all oil and chemicals used, processed, or stored at the facility which may be spilled into state waters.

The Plan and any supplements shall be followed throughout the term of the permit. The Spill Control Plan shall be kept on site and made available upon request. For the purpose of meeting this requirement, plans and manuals, or portions thereof, required by 33 CFR 154, 40 CFR 109, 40 CFR 110, 40 CFR Part 112, the Federal Oil Pollution Act of 1990, Chapter 173-181, and contingency plans required by Chapter 173-303 WAC may be submitted.

S6. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

The definitions of terms used in this section are provided in the guidance document entitled **Guidance Manual for Preparing/Updating a Stormwater Pollution Prevention Plan for Industrial Facilities** (Ecology Pub. No. 04-10-030), which is published by the Department of Ecology. The SWPPP shall incorporate the applicable best management practices (BMPs) provided in Special Condition S7. of this permit for on-site stormwater runoff that flows to the stormwater treatment system. The SWPPP include both the BMPs related to the treated stormwater discharge to ground (this permit) as well as the BMPs that are related to the incidental discharges to the Middle Waterway from the dry-dock, the marine railway, and pierside operations as covered under NPDES Permit (No. WA0040444).

A. General Requirements

1. Submission, Retention, and Availability:

The Permittee review the SWPPP annually and revise the SWPPP, as necessary. Any revisions to the SWPPP must be submitted to Ecology within 30 days. If no revisions to the SWPPP have been made, the SWPPP must be resubmitted to Ecology postmarked no later than **January 2, 2013**.

The SWPPP shall include a discussion of pollution prevention practices and BMPs that are related to this state waste discharge permit as well as related to the NPDES permit (No. WA0040444) which regulates marine railway and dry dock stormwater discharges to the Middle Waterway in the same document. If stormwater discharge is to a municipal storm sewer system, submit a copy of the SWPPP to the municipal operator of the storm sewer system. The SWPPP and all of its modifications shall be signed in accordance with General Condition G1. The SWPPP shall be retained on site.

2. Modifications:

The Permittee shall modify the SWPPP whenever there is a change in design, construction, operation or maintenance, which causes the SWPPP to be less effective in controlling the pollutants. Whenever the description of potential pollutant sources or the pollution prevention measures and controls identified in the SWPPP are inadequate, the SWPPP shall be modified, as appropriate, within two months of such determination. The proposed modifications to the SWPPP shall be submitted to Ecology at least 30 days in advance of implementing the proposed changes in the plan unless Ecology approves immediate implementation. The Permittee shall provide for implementation of any modifications to the SWPPP in a timely manner.

3. The Permittee may incorporate applicable portions of plans prepared for other purposes. Plans or portions of plans incorporated into an SWPPP become enforceable requirements of this permit.

4. The Permittee shall prepare the SWPPP in accordance with the guidance provided in **Guidance Manual for Preparing/Updating a Stormwater Pollution Prevention Plan for Industrial Facilities**. The plan shall contain the following elements:

a. Assessment and description of existing and potential pollutant sources.

b. A description of the operational BMPs.

c. A description of selected source-control BMPs.

d. When necessary, a description of the erosion and sediment control BMPs.

e. When necessary, a description of the treatment BMPs.

f. An implementation schedule.

B. Implementation

The Permittee shall conduct two inspections per year: one during the wet season (October 1 – April 30) and the other during the dry season (May 1 – September 30).

1. The wet season inspection shall be conducted during a rainfall event by personnel named in the SWPPP to verify that the description of potential pollutant sources required under this permit are accurate; the site map as required in the SWPPP has been updated or otherwise modified to reflect current conditions; and the controls to reduce pollutants in stormwater discharges associated with industrial activity identified in the SWPPP are being implemented and are adequate. The wet weather inspection shall include observations of the presence of floating materials, suspended solids, oil and grease, discolorations, turbidity, odor, etc. in the stormwater discharge(s).

2. Personnel named in the SWPPP shall conduct the dry season inspection. The dry season inspection shall determine the presence of unpermitted non-stormwater discharges such as domestic wastewater, noncontact cooling water, or process wastewater (including leachate) to the stormwater drainage system. If an unpermitted, non-stormwater discharge is discovered, the Permittee shall immediately notify Ecology.

C. Plan Evaluation

The Permittee shall evaluate whether measures to reduce pollutant loadings identified in the SWPPP are adequate and properly implemented in accordance with the terms of the permit or whether additional controls are needed. A record shall be maintained summarizing the results of inspections and include a certification, in accordance with Conditions S2.B and G1, that the facility is in compliance with the plan and in compliance with this permit. The record shall identify any incidents of noncompliance.

S7. BEST MANAGEMENT PRACTICES

The Permittee shall implement the applicable source reduction and best management practices (BMPs) included in this Section for any applicable area which drains into the facility's stormwater collection and treatment systems. These same BMPs are applicable to dry-dock and marine railway operations which introduce stormwater discharge directly into the Middle Waterway and are covered under a separate National Pollution Discharge Elimination System (NPDES) Permit (No. WA0040444). All employees, contractors, ship owners, and other customers shall be informed and provided copies of the BMPs adopted in the SWPPP as required in Special Condition S6. of this permit. These BMPs shall be posted conspicuously within the work areas.

A. Control of Large Solid Materials

Floatable and low density waste such as wood, plastic, and miscellaneous trash such as paper, insulation, and packaging shall be removed from the drydock floors prior to flooding and marine railway daily.

B. Control and Cleanup of Paint Dust and Abrasive Blasting Debris

Dust and overspray shall be confined to the shipyard repair and construction areas to the maximum extent feasible during abrasive blasting and spray painting of vessels and modules. Feasible methods of control include conducting the work in a sandblast/spray paint shed, or installing plastic barriers around the vessel. Plastic barriers hung from the vessel, or temporary structures around the vessel should be secure, sealed, and arranged to prevent the fugitive emissions of abrasive grit and dust, as well as effectively capture overspray from spray painting activities. The bottom edge of tarpaulins and plastic sheeting shall be weighed or fastened to remain in place during windy conditions.

Consideration shall also be given to other feasible innovative procedures as appropriate to improve the effectiveness of controlling dust emissions and paint overspray. Such innovative methods may include wet abrasive blasting (slurry blasting), product substitution for blasting media, e.g. sodium bicarbonate, or overall waste minimization and recycling, e.g. the use of vacuum return sandblasting heads or steel shot blast technology.

No abrasive blasting or spray painting shall be performed while vessels are docked pier-side such that any material is discharged to the receiving water.

Cleanup of spent paint, paint chips, protective coating materials, and abrasives shall be undertaken as part of the repair or production activities, to the extent maximally feasible, as to prevent their entry into state waters. Mechanical sweeper along with manual methods and any other innovative methods will be used for cleanup of spent paint, paint chips, protective coating materials and abrasives.

Spent abrasive blasting grit and debris shall be collected and stored under cover in a designated area until it is transported off site for disposal.

Innovations and procedures which improve the effectiveness of cleanup operations shall be adopted where they are feasible, appropriate and can be demonstrated as preventing the discharge of solids to water.

After a vessel has been removed from the drydock and the dock has been deflooded for repositioning of the keel and bilge blocks, the remaining areas of the floor which were previously inaccessible shall be cleaned by scraping or broom cleaning prior to the introduction of another vessel into the drydock. The requirement to clean the previously inaccessible area shall be waived either in emergency situations or when another vessel is ready to be introduced into the drydock within 15 hours.

C. <u>In-Water Vessel Maintenance – Surface Preparation BMPs</u>

The cleaning of any portion of a vessel's hull below the waterline while the vessel is afloat is prohibited.

The following types of surface preparation activities are allowed to be conducted on a vessel's hull above the waterline while it is at a permitted shipyard facility. These activities are only allowed provided that containment and collection BMP measures are in effect to prevent the introduction of dust, dirt, debris or any other pollutants generated from these surface preparation operations from being deposited on, or enter into waters of the state:

- Mechanical hand preparation, such as scraping or wire brushing;
- Conventional mechanical grinding or use of other powered mechanical abrading tools;
- Innovative abrasive blasting systems or ultra-high water pressure systems for surface preparation will be allowed to be conducted on a vessel's hull while it is in the water provided that it has been demonstrated before-hand to Ecology's satisfaction that such methods do not release generated pollutants into waters of the state.

D. <u>In-Water Vessel Maintenance – Paint and Coating Application BMPs</u>

The following methods of paint and coating applications to a vessel's hull while in the water at a permitted shipyard are allowed provided that all containment, collection and

spill prevention BMPs are in place before any such applications are made to a vessel's hull:

- Application by roller;
- Application by brush;
- Innovative spray-paint or spray-coating application methods will be allowed to be conducted on a vessel's hull while it is in the water provided that it has been demonstrated before-hand to Ecology's satisfaction that such methods do not release generated pollutants into the waters of the state.

E. BMPs for Floats Used for In-Water Vessel Maintenance

Floats are defined as free-floating, unattached work platforms capable of moving back and forth along the length of the ship and around its hull.

Floats shall at all times maintain a minimum of 6-inch of freeboard at the floats' lowest point during all phases of maintenance operations. The minimum 6-inch freeboard requirement must be maintained with all scaffolding configurations and number of persons on board the float. All necessary precautions will be taken by personnel on board the float to prevent paints, cleaning materials, petroleum products, all other liquids and unsecured materials from entering into the water from the float.

Any container of paint, marine coating or any other liquid product for painting or surface preparation of one gallon or greater must be provided with secondary containment when used on board a float. All roller pans used on a float must be provided with secondary spill containment. Secondary spill containment capacity is equal to the entire volume of the container plus 10 percent of the volume of that same container.

F. Documentation Requirements for In-Water Vessel Maintenance BMPs

Documentation requirements will be in effect for any in-water surface preparation operations of one hour or more in duration and any in-water coating or painting operation involving ½ gallon or more of paint or marine coating.

Documentation requirements will consist of, at a minimum, one or more representative photographs of all in-water vessel maintenance BMPs which are implemented for surface preparation operations and all painting and coating operations. All such photographs shall be dated and maintained in a logbook with all necessary descriptive narrative of the in-water vessel maintenance BMPs being documented. These records shall be made available to Ecology upon request and be retained on-site for at least three years.

G. Oil, Grease and Fuel Spills Prevention and Containment

No discharge of oil, hazardous material or paint to state waters is allowed, except as specifically authorized by this permit. Oil, grease, fuel or paint spills shall be prevented from reaching drainage systems or surface waters. Cleanup shall be carried out promptly after an oil, grease, fuel, or paint spill is detected. Oil containment booms and adsorbents shall be conveniently stored so as to be immediately deployable in the event of a spill.

All yard personnel that may participate in cleanup of spills shall be trained in the use and deployment of cleanup equipment.

In the event of an accidental discharge of oil or hazardous material into waters of the state or onto land with a potential for entry into state waters, Ecology's Southwest Regional Office Spill Response Section and the United State Coast Guard shall be notified immediately.

1. Cleanup efforts shall commence immediately and be completed as soon as possible, taking precedence over normal work, and shall include proper disposal of spilled material and used cleanup materials.

2. Cleanup of oil or hazardous material spills shall be in accordance with an approved spill control plan, or according to specific instructions of the on-scene coordinator.

3. No emulsifiers or dispersants are to be used in or upon the waters of the state without prior approval from the Director of Ecology. Drip pans or other protective devices shall be required for all oil transfer operations to catch incidental spills and drips from hose nozzles, hose racks, drums or barrels. Oils and fuel storage tanks shall be provided with secondary containment.

H. Paint and Solvent Use and Containment

The mixing of paints and solvents shall be carried out in locations and under conditions such that no spill shall enter state waters.

1. Drip pans or other protective devices shall be required for all paint mixing and solvent transfer operations, unless the mixing operation is carried out in covered and controlled areas away from storm drains, surface waters, shorelines, and piers. Drip pans, drop cloths, or tarpaulins shall be used wherever paints and solvents are mixed on wood docks. Paints and solvents shall not be mixed on floats.

2. When painting from floats or near storm drains, paint shall be in cans of five gallons or less. The paint containers shall be kept in drip pans with drop cloths or tarpaulins underneath the drip pans.

3. Paint and solvent spills shall be treated as oil spills and shall be prevented from reaching storm drains and subsequent discharge into the water.

I. Contact Between Water and Debris

Shipboard cooling and non-contact process water shall be directed as to minimize contact with spent abrasives, paint chips, and other debris. Contact between spent abrasives or paint chips and water will be reduced by proper segregation and control of wastewater streams. Appropriate methods shall be incorporated to prevent accumulation of debris in drainage systems and debris shall be promptly removed to prevent its discharge with stormwater.

J. Maintenance of Hoses, Soil Chutes, and Piping

Leaking connections, valves, pipes, hoses, and soil chutes carrying either water or wastewater shall be replaced or repaired immediately. Soil chute and hose connections to vessels and to receiving lines or containers shall be tightly connected and as leak free as practicable.

K. Bilge and Ballast Water

Bilge waters from machinery or pump room spaces are prohibited from discharge to state waters and must be handled accordingly by a waste oil hauler or tank cleaning service. Yard operators are to encourage vessel owners/operators to de-ballast prior to yard repair periods.

Ballast water shall not be discharged to state waters if solvents, oil, detergents, or other known or suspected additives or contaminants have been added.

L. Chemical Storage

Solid chemicals, chemical solutions, paints, oils, solvents, acids, caustic solutions, and waste materials, including used batteries, shall be stored in a manner which will prevent the inadvertent entry of these materials into waters of the state. Storage shall be in a manner that will prevent spills due to overfilling, tipping, or rupture. In addition, the following practices shall be used:

1. All liquid products shall be stored on durable impervious surfaces and within bermed containment capable of containing 110 percent of the largest single container in the storage area.

2. Waste liquids shall be stored under cover, such as tarpaulins or roofed structures. All waste storage areas, whether for waste oil or hazardous waste, shall be clearly designated as such, and kept segregated from new product storage.

3. Incompatible or reactive materials shall be segregated and securely stored in separate containment areas that would prevent the inadvertent mixing and reaction of spilled chemicals.

4. Concentrated waste or spilled chemicals shall be transported off-site for disposal at a facility approved by Ecology or appropriate county health authority in accordance with the solid waste disposal requirements of Special Condition S4. These materials shall not be discharged to any sewer or state waters.

M. Recycling of Spilled Chemicals

Any intercepted chemical spill shall be recycled back to the appropriate chemical solution tank or cleaned up and disposed of properly. The spilled material must be handled, recycled, or disposed of in such a manner as to prevent its discharge into state waters.

N. Identification of Pollutant Sources

To facilitate the consistent and effective implementation of the BMPs described above, the Permittee shall develop a program for training its employees, and all contractors who work at the facility, on BMPs and the environmental concerns related to this permit. There are a variety of ways to accomplish this and the Permittee should determine the method that works best for the company.

For example, regular safety meetings may be a convenient time to discuss BMP implementation successes or problems and get input on better ways of accomplishing pollution prevention. The Permittee may consider providing similar information to its customers.

O. Sewage and Gray Water Discharges Prohibited

Owners of vessels under repair shall be notified in writing by the Permittee that federal and state regulations prohibit the discharge of sewage and gray water into the waterways. If untreated, sanitary wastes from vessels must be discharged, the discharge shall be into holding tanks that are periodically emptied into a sanitary sewer system. The Permittee will make available at all times a list of contractors providing disposal services and any other alternatives available for complying with these regulations, such as holding tanks and pump-out facilities.

P. Pierside Controls

It is Marine Industries Northwest's (MINW) responsibility to prevent, contain and cleanup spills from any pierside vessel that (MINW) is working on.

Q. Additional Housekeeping BMPs

Clean regularly all accessible work, service, storage and access areas to remove debris, spent sandblasting material, dust, garbage and any other potential stormwater pollutants. This shall be disposed of properly and immediately; at no time should this material be kept in exposed piles. Sweep rather than hose debris on the dock. If hosing is unavoidable, the hose water must be collected and conveyed to treatment.

GENERAL CONDITIONS

G1. SIGNATORY REQUIREMENTS

All applications, reports, or information submitted to Ecology shall be signed as follows:

A. All permit applications shall be signed by either a principal executive officer or ranking elected official.

B. All reports required by this permit and other information requested by Ecology shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by the person described above and is submitted to Ecology at the time of authorization, and

2. The authorization specifies either a named individual or any individual occupying a named position.

C. Changes to authorization. If an authorization under paragraph B.2 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.

D. Certification. Any person signing a document under this section shall make the following certification:

> "I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

G2. RIGHT OF ENTRY

Representatives of Ecology shall have the right to enter at all reasonable times in or upon any property, public or for the purpose of inspecting and investigating conditions relating to the pollution or the possible pollution of any waters of the state. Reasonable times shall include normal business hours; hours during which production, treatment, or discharge occurs; or times when Ecology suspects a violation requiring immediate inspection. Representatives of Ecology shall be allowed to have access to, and copy at reasonable cost, any records required to be kept under terms and conditions of the permit; to inspect any monitoring equipment or method required in the permit; and to sample the discharge, waste treatment processes, or internal waste streams.

G3. PERMIT ACTIONS

This permit shall be subject to modification, suspension, or termination, in whole or in part by Ecology for any of the following causes:

A. Violation of any permit term or condition;

B. Obtaining a permit by misrepresentation or failure to disclose all relevant facts;

C. A material change in quantity or type of waste disposal;

D. A material change in the condition of the waters of the state; or

E. Nonpayment of fees assessed pursuant to RCW 90.48.465.

Ecology may also modify this permit, including the schedule of compliance or other conditions, if it determines good and valid cause exists, including promulgation or revisions of regulations or new information.

G4. REPORTING A CAUSE FOR MODIFICATION

The Permittee shall submit a new application, or a supplement to the previous application, along with required engineering plans and reports, whenever a new or increased discharge or change in the nature of the discharge is anticipated which is not specifically authorized by this permit. This application shall be submitted at least 60 days prior to any proposed changes. Submission of this application does not relieve the Permittee of the duty to comply with the existing permit until it is modified or reissued.

G5. PLAN REVIEW REQUIRED

Prior to constructing or modifying any wastewater control facilities, an engineering report and detailed plans and specifications shall be submitted to Ecology for approval in accordance with Chapter 173-240 WAC. Engineering reports, plans, and specifications should be submitted at least 180 days prior to the planned start of construction. Facilities shall be constructed and operated in accordance with the approved plans.

G6. COMPLIANCE WITH OTHER LAWS AND STATUTES

Nothing in the permit shall be construed as excusing the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G7. DUTY TO REAPPLY

The Permittee must apply for permit renewal submitted postmarked no later than **January 2, 2013**.

G8. PERMIT TRANSFER

This permit is automatically transferred to a new owner or operator if:

A. A written agreement between the old and new owner or operator containing a specific date for transfer of permit responsibility, coverage, and liability is submitted to Ecology;

B. A copy of the permit is provided to the new owner and;

C. Ecology does not notify the Permittee of the need to modify the permit.

Unless this permit is automatically transferred according to section A. above, this permit may be transferred only if it is modified to identify the new Permittee and to incorporate such other requirements as determined necessary by Ecology.

G9. PAYMENT OF FEES

The Permittee shall submit payment of fees associated with this permit as assessed by Ecology. Ecology may revoke this permit if the permit fees established under Chapter 173-224 WAC are not paid.

G10. PENALTIES FOR VIOLATING PERMIT CONDITIONS

Any person who is found guilty of willfully violating the terms and conditions of this permit shall be deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to ten thousand dollars and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit shall incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars for every such violation. Each and every such violation shall be a separate and distinct offense, and in case of a continuing violation, every day's continuance shall be and be deemed to be a separate and distinct violation.

APPENDIX A

EFFLUENT CHARACTERIZATION FOR POLLUTANTS
THIS LIST INCLUDES EPA REQUIRED POLLUTANTS (PRIORITY POLLUTANTS) AND SOME ECOLOGY PRIORITY TOXIC CHEMICALS (PBTs)

The following table with analytical methods and levels is to be used as guidance for effluent characterization in NPDES permit applications, applications for permit renewal, and monitoring required by permit. This attachment is used in conjunction with Section V, Parts A, B, and C of EPA Application Form 2C, Parts A.12, B.6, and D of EPA application form 2A and with State applications. This attachment specifies effluent characterization requirements of the Department of Ecology. For application, analyze your wastewater for all parameters required by the application and any additional pollutants with an X in the left column. The data should be compiled from last year's data if it is a parameter routinely measured. If you are a primary industry category with effluent guidelines you may have some mandatory testing requirements (see Table 2C-2 of Form 2C). If you are a municipal POTW you also have some mandatory testing requirements which are dependent upon the design flow (see EPA form 2A).

The permit applications will specify the groups of compounds to be analyzed. Ecology may require additional pollutants to be analyzed within a group. The objectives are to reduce the number of analytical "non-detects" in applications and to measure effluent concentrations near or below criteria values where possible at a reasonable cost. If an applicant or Permittee knows that an alternate, less sensitive method (higher DL and QL) from 40 CFR Part 136 is sufficent to produce measurable results in their effluent, that method may be used for analysis.

	Pollutant & CAS No. ***(if available)***	**Recommended Analytical Protocol**	**Detection Level (DL)**[2] ***µg/L unless specified***	**Quantitation Level (QL)** [3] ***µg/L unless specified***
[1]	**CONVENTIONALS**			
	Biochemical Oxygen Demand	SM5210-B		2 mg/L
	Chemical Oxygen Demand	SM5220-D		10 mg/L
	Total Organic Carbon	SM5310-B/C/D		1 mg/L
	Total Suspended Solids	SM2540-D		5 mg/L
	Total Ammonia (as N)	SM4500-NH3- GH		0.3 mg/L
	Flow	Calibrated device		
	Dissolved oxygen	4500-OC/OG		0.2 mg/L
	Temperature (max. 7-day avg.)	Analog recorder or Use micro-recording devices known as thermistors		0.2º C
	pH	SM4500-H^+ B	N/A	N/A
[1]	**NONCONVENTIONALS**			
	Total Alkalinity	SM2320-B		5 mg/L as CaCo3
	Bromide (24959-67-9)	4110 B	100	400
	Chlorine, Total Residual	4500 Cl G		50.0

	Pollutant & CAS No. *(if available)*	Recommended Analytical Protocol	Detection Level (DL)[2] *µg/L unless specified*	Quantitation Level (QL)[3] *µg/L unless specified*
	Color	SM2120 B/C/E		10 color unit
	Fecal Coliform	SM 9221E	N/A	N/A
	Fluoride (16984-48-8)	SM4500-F E	25	100
	Nitrate-Nitrite (as N)	4500-NO3- E/F/H		100
	Nitrogen, Total Kjeldahl (as N)	4500-NH3-C/E/FG		300
	Ortho-Phosphate (PO_4 as P)	4500- PE/PF	30	100
	Phosphorus, Total (as P)	4500-PE/PF	30	100
	Oil and Grease (HEM)	1664A		5,000
	Radioactivity	Table 1E		
	Salinity	SM2520-B		3 PSS
	Settleable Solids	SM2540 -F		100
	Sulfate (as mg/L SO_4)	SM4110-B		200
	Sulfide (as mg/L S)	4500-S^2F/D/E/G		200
	Sulfite (as mg/L SO_3)	SM4500-SO3B		2000
	Surfactants	SM5540 C		50
	Total dissolved solids	SM2540 C		20 mg/L
	Total Hardness	2340B		200 as CaCO3
	Aluminum, Total (7429-90-5)	200.8	2.0	10
	Barium Total (7440-39-3)	200.8	0.5	2.0
	Boron Total (7440-42-8)	200.8	2.0	10.0
	Cobalt, Total (7440-48-4)	200.8	0.05	0.25
	Iron, Total (7439-89-6)	200.8	12.5	50
	Magnesium, Total (7439-95-4)	200.8	10	50
	Molybdenum, Total (7439-98-7)	200.8	0.1	0.5
	Manganese, Total (7439-96-5)	200.8	0.1	0.5
	Tin, Total (7440-31-5)	200.8	0.3	1.5
	Titanium, Total (7440-32-6)	200.8	0.5	2.5
[1]	**METALS, CYANIDE & TOTAL PHENOLS**			
	Antimony, Total (7440-36-0)	200.8	0.3	1.0
	Arsenic, Total (7440-38-2)	200.8	0.1	0.5
	Beryllium, Total (7440-41-7)	200.8	0.1	0.5
	Cadmium, Total (7440-43-9)	200.8	0.05	0.25
	Chromium (hex) dissolved (185-402-99)	SM3500-Cr EC	0.3	1.2
	Chromium, Total (7440-47-3)	200.8	0.2	1.0
	Copper, Total (7440-50-8)	200.8	0.4	2.0
	Lead, Total (7439-92-1)	200.8	0.1	0.5
	Mercury, Total (7439-97-6)	1631E	0.0002	0.0005
	Nickel, Total (7440-02-0)	200.8	0.1	0.5
	Selenium, Total (7782-49-2)	200.8	1.0	1.0
	Silver, Total (7440-22-4)	200.8	0.04	0.2
	Thallium, Total (7440-28-0)	200.8	0.09	0.36
	Zinc, Total (7440-66-6)	200.8	0.5	2.5

	Pollutant & CAS No. *(if available)*	Recommended Analytical Protocol	Detection Level (DL)[2] *µg/L unless specified*	Quantitation Level (QL)[3] *µg/L unless specified*
	Cyanide, Total (7440-66-6)	335.4	5	10
	Cyanide, Available	SM4500-CN G	5	10
	Phenols, Total	EPA 420.1		50
	DIOXIN			
	2,3,7,8-Tetra-Chlorodibenzo-P-Dioxin (176-40-16)	1613B	1.3 pg/L	5 pg/L
[1]	**VOLATILE COMPOUNDS**			
	Acrolein (107-02-8)	624	5	10
	Acrylonitrile (107-13-1)	624	1.0	2.0
	Benzene (71-43-2)	624	1.0	2.0
	Bis(2-Chloroethyl)ether (111-44-4)	611/625	1.0	2.0
	Bis(2-Chloroisopropyl) ether (108-60-1)	611/625	1.0	2.0
	Bromoform (75-25-2)	624	1.0	2.0
	Carbon tetrachloride (108-90-7)	624/601 or SM6230B	1.0	2.0
	Chlorobenzene (108-90-7)	624	1.0	2.0
	Chloroethane (75-00-3)	624/601	1.0	2.0
	2-Chloroethylvinyl Ether (110-75-8)	624	1.0	2.0
	Chloroform (67-66-3)	624 or SM6210B	1.0	2.0
	Dibromochloromethane (124-48-1)	624	1.0	2.0
	1,2-Dichlorobenzene (95-50-1)	624	1.9	7.6
	1,3-Dichlorobenzene (541-73-1)	624	1.9	7.6
	1,4-Dichlorobenzene (106-46-7)	624	4.4	17.6
	3,3'-Dichlorobenzidine (91-94-1)	605/625	0.5	1.0
	Dichlorobromomethane (75-27-4)	624	1.0	2.0
	1,1-Dichloroethane (75-34-3)	624	1.0	2.0
	1,2-Dichloroethane (107-06-2)	624	1.0	2.0
	1,1-Dichloroethylene (75-35-4)	624	1.0	2.0
	1,2-Dichloropropane (78-87-5)	624	1.0	2.0
	1,3-dichloropropylene (mixed isomers) (542-75-6)	624	1.0	2.0
	Ethylbenzene (100-41-4)	624	1.0	2.0
	Methyl bromide (74-83-9) (Bromomethane)	624/601	5.0	10.0
	Methyl chloride (74-87-3) (Chloromethane)	624	1.0	2.0
	Methylene chloride (75-09-2)	624	5.0	10.0

	Pollutant & CAS No. *(if available)*	Recommended Analytical Protocol	Detection Level (DL)[2] *µg/L unless specified*	Quantitation Level (QL) [3] *µg/L unless specified*
	1,1,2,2-Tetrachloroethane (79-34-5)	624	1.9	2.0
	Tetrachloroethylene (127-18-4)	624	1.0	2.0
	Toulene (108-88-3)	624	1.0	2.0
	1,2-Trans-Dichloroethylene (156-60-5) (Ethylene dichloride)	624	1.0	2.0
	1,1,1-Trichloroethane (71-55-6)	624	1.0	2.0
	1,1,2-Trichloroethane (79-00-5)	624	1.0	2.0
	Trichloroethylene (79-01-6)	624	1.0	2.0
	Vinyl chloride (75-01-4)	624/SM6200B	1.0	2.0
[1]	**ACID COMPOUNDS**			
	2-Chlorophenol (95-57-8)	625	1.0	2.0
	2,4-Dichlorophenol (120-83-2)	625	0.5	1.0
	2,4-Dimethylphenol (105-67-9)	625	0.5	1.0
	4,6-dinitro-o-cresol (534-52-1) (2-methyl-4,6,-dinitrophenol)	625/1625B	1.0	2.0
	2,4 dinitrophenol (51-28-5)	625	1.0	2.0
	2-Nitrophenol (88-75-5)	625	0.5	1.0
	4-nitrophenol (100-02-7)	625	0.5	1.0
	Parachlorometa cresol (59-50-7) (4-chloro-3-methylphenol)	625	1.0	2.0
	Pentachlorophenol (87-86-5)	625	0.5	1.0[10]
	Phenol (108-95-2)	625	2.0	4.0
	2,4,6-Trichlorophenol (88-06-2)	625	2.0	4.0
[1]	**BASE/NEUTRAL COMPOUNDS (compounds in bold are Ecology PBTs)**			
	Acenaphthene (83-32-9)	625	0.2	0.4
	Acenaphtylene (208-96-8)	625	0.3	0.6
	Anthracene (120-12-7)	625	0.3	0.6
	Benzidine (92-87-5)	625	12	24
	Benzyl butyl phthalate (85-68-7)	625	0.3	0.6
	Benzo(*a*)anthracene (56-55-3)	625	0.3	0.6
	Benzo(j)fluoranthene (205-82-3)	625	0.5	1.0
	Benzo(r,s,t)pentaphene (189-55-9)	625	0.5	1.0
	Benzo(*a*)pyrene (50-32-8)	610/625	0.5	1.0
	3,4-benzofluoranthene (Benzo(b)fluoranthene) (205-99-2)	610/625	0.8	1.6
	11,12-benzofluoranthene (Benzo(k)fluoranthene) (207-08-9)	610/625	0.8	1.6

	Pollutant & CAS No. *(if available)*	Recommended Analytical Protocol	Detection Level (DL)[2] *µg/L unless specified*	Quantitation Level (QL)[3] *µg/L unless specified*
	Benzo(*ghi*)Perylene (191-24-2)	610/625	0.5	1.0
	Bis(*2-chloroethoxy)*methane (111-91-1)	625	5.3	21.2
	Bis(*2-chloroethyl*)ether (111-44-4)	611/625	0.3	1.0
	Bis(*2-chloroisopropyl*)ether (108-60-1)	625	0.3	0.6
	Bis(*2-ethylhexyl*)phthalate (117-81-7)	625	0.1	0.5
	4-Bromophenyl phenyl ether (101-55-3)	625	0.2	0.4
	2-Chloronaphthalene (91-58-7)	625	0.3	0.6
	4-Chlorophenyl phenyl ether (7005-72-3)	625	0.3	0.5
	Chrysene (218-01-9)	610/625	0.3	0.6
	Dibenzo (a,j)acridine (224-42-0)	610M/625M	2.5	10.0
	Dibenzo (a,h)acridine (226-36-8)	610M/625M	2.5	10.0
	Dibenzo(a-*h*)anthracene (53-70-3)(1,2,5,6-dibenzanthracene)	625	0.8	1.6
	Dibenzo(a,e)pyrene (192-65-4)	610M/625M	2.5	10.0
	Dibenzo(a,h)pyrene (189-64-0)	625M	2.5	10.0
	3,3'-Dichlorobenzidine (91-94-1)	605/625	0.5	1.0
	Diethyl phthalate (84-66-2)	625	1.9	7.6
	Dimethyl phthalate (131-11-3)	625	1.6	6.4
	Di-n-butyl phthalate (84-74-2)	625	0.5	1.0
	2,4-dinitrotoluene (121-14-2)	609/625	0.2	0.4
	2,6-dinitrotoluene (606-20-2)	609/625	0.2	0.4
	Di-n-octyl phthalate (117-84-0)	625	0.3	0.6
	1,2-Diphenylhydrazine (*as Azobenzene*) (122-66-7)	1625B	5.0	20
	Fluoranthene (206-44-0)	625	0.3	0.6
	Fluorene (86-73-7)	625	0.3	0.6
	Hexachlorobenzene (118-74-1)	612/625	0.3	0.6
	Hexachlorobutadiene (87-68-3)	625	0.5	1.0
	Hexachlorocyclopentadiene (77-47-4)	1625B/625	0.5	1.0
	Hexachloroethane (67-72-1)	625	0.5	1.0
	Indeno(*1,2,3-cd*)Pyrene (193-39-5)	610/625	0.5	1.0
	Isophorone (78-59-1)	625	0.5	1.0

	3-Methyl cholanthrene (56-49-5)	625	2.0	8.0
	Naphthalene (91-20-3)	625	0.3	0.6
	Nitrobenzene (98-95-3)	625	0.5	1.0
	N-Nitrosodimethylamine (62-75-9)	607/625	2.0	4.0
	N-Nitrosodi-n-propylamine (621-64-7)	607/625	0.5	1.0
	N-Nitrosodiphenylamine (86-30-6)	625	0.5	1.0
	Perylene (198-55-0)	625	1.9	7.6
	Phenanthrene (85-01-8)	625	0.3	0.6
	Pyrene (129-00-0)	625	0.3	0.6
	1,2,4-Trichlorobenzene (120-82-1)	625	0.3	0.6
[1]	**PESTICIDES/PCBs**			
	Aldrin (309-00-2)	608	0.025	0.05
	alpha-BHC (319-84-6)	608	0.025	0.05
	beta-BHC (319-85-7)	608	0.025	0.05
	gamma-BHC (58-89-9)	608	0.025	0.05
	delta-BHC (319-86-8)	608	0.025	0.05
	Chlordane (57-74-9)	608	0.025	0.05
	4,4'-DDT (50-29-3)	608	0.025	0.05
	4,4'-DDE (72-55-9)	608	0.025	0.05[10]
	4,4' DDD (72-54-8)	608	0.025	0.05
	Dieldrin (60-57-1)	608	0.025	0.05
	alpha-Endosulfan (959-98-8)	608	0.025	0.05
	beta-Endosulfan (33213-65-9)	608	0.025	0.05
	Endosulfan Sulfate (1031-07-8)	608	0.025	0.05
	Endrin (72-20-8)	608	0.025	0.05
	Endrin Aldehyde (7421-93-4)	608	0.025	0.05
	Heptachlor (76-44-8)	608	0.025	0.05
	Heptachlor Epoxide (1024-57-3)	608	0.025	0.05
	PCB-1242 (53469-21-9)	608	0.25	0.5
	PCB-1254 (11097-69-1)	608	0.25	0.5
	PCB-1221 (11104-28-2)	608	0.25	0.5
	PCB-1232 (11141-16-5)	608	0.25	0.5
	PCB-1248 (12672-29-6)	608	0.25	0.5
	PCB-1260 (11096-82-5)	608	0.13	0.5
	PCB-1016 (12674-11-2)	608	0.13	0.5
	Toxaphene (8001-35-2)	608	0.24	0.5

1. An X placed in this box means you must analyze for all pollutants in the group.

2. Detection level (DL) or detection limit means the minimum concentration of an analyte (substance) that can be measured and reported with a 99 percent confidence that the analyte

concentration is greater than zero as determined by the procedure given in 40 CFR part 136, Appendix B.

3. Quantitation Level (QL) is equivalent to EPA's Minimum Level (ML) which is defined in 40 CFR Part 136 as the minimum level at which the entire GC/MS system must give recognizable mass spectra (background corrected) and acceptable calibration points. These levels were published as proposed in the Federal Register on March 28, 1997.